

**IN THE CLAIMS:**

1-3. (Cancelled)

4. (Previously Presented) A 3-dimensional image acquisition apparatus for acquiring images to be used for 3-dimensionally reconstructing an object by picking up the object twice or more than twice in an image acquisition set including picking up at least once the object carrying a pattern projected onto it, the apparatus comprising:

a camera configured to pick up the object;

a projection light source configured to project light for the purpose of projecting the pattern onto the object;

a light projection information memory configured to store information on projection of light including information on the time for projecting light for the purpose of projecting the pattern in the image acquisition set;

an image acquisition progress information memory configured to store information on the progress of image acquisition in the image acquisition set;

a controller configured to control the projection of light by the projection light source and the picking up by the camera on the basis of the information on projection of light stored in the light projection information memory and the information on the progress stored in the image acquisition progress information memory;

a proper image acquisition judging section configured to judge the appropriateness of the image acquisition that one of that is being conducted and has been conducted on the basis of one of the information on projection of light and the information on the progress; and

an indicator configured to show the judgment result of the proper image acquisition judging section.

5. (Previously Presented) A 3-dimensional image acquisition apparatus for acquiring images to be used for 3-dimensionally reconstructing an object by picking up the object twice or more than twice in an image acquisition set including picking up at least once the object carrying a pattern projected onto it, the apparatus comprising:

a camera configured to pick up the object;

a projection light source configured to project light for the purpose of projecting the pattern onto the object;

a light projection information memory configured to store information on projection of light including information on the time for projecting light for the purpose of projecting the pattern in the image acquisition set;

an image acquisition progress information memory configured to store information on the progress of image acquisition in the image acquisition set;

a controller configured to control the projection of light by the projection light source and the picking up by the camera on the basis of the information on projection of light stored in the light projection information memory and the information on the progress stored in the image acquisition progress information memory; and

a proper image acquisition judging section configured to judge the appropriateness of the image acquisition that one of that is being conducted and has been conducted on the basis of one of the information on projection of light and the information on the progress, wherein

the controller is adapted to reset the image acquisition progress information memory so as to make it store the progress information necessary for a first imaging session when the proper image acquisition judging section determines that the current image acquisition is not appropriate.

6-27. (Cancelled)